

## M 5.5, 78 km W of Vallenar, Chile

Origin Time: 2021-12-14 04:23:55 UTC (Tue 01:23:55 local)  
Location: 28.6861° S 71.5555° W Depth: 17.8 km

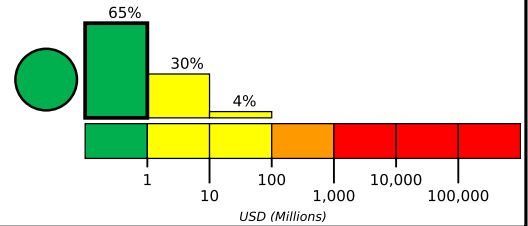
Created: 1 week, 5 days after earthquake

### Estimated Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.



### Estimated Economic Losses

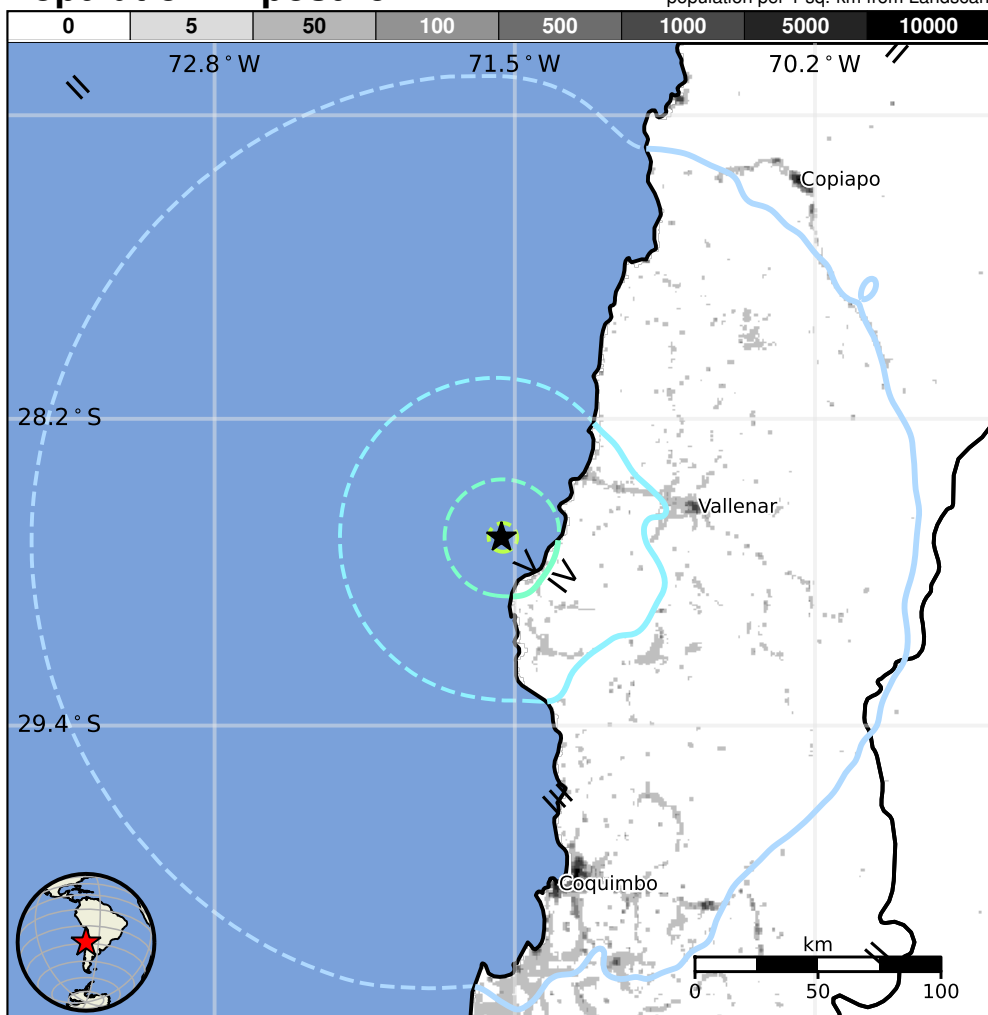


### Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)	—*	780k	19k	1k	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy

\*Estimated exposure only includes population within the map area.

### Population Exposure



### Structures

Overall, the population in this region resides in structures that are resistant to earthquake shaking, though vulnerable structures exist. The predominant vulnerable building types are adobe block and rubble/field stone masonry construction.

### Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1983-10-04	260	7.6	VII(30k)	5
1975-03-13	137	6.9	VIII(266k)	2
1997-10-15	248	7.1	VIII(3k)	7

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

### Selected City Exposure

from GeoNames.org

MMI	City	Population
III	Vallenar	45k
III	Vallenar	<1k
III	Vicuna	13k
III	La Serena	155k
III	Coquimbo	161k
II	Copiapo	129k

bold cities appear on map.

(k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.

<https://earthquake.usgs.gov/earthquakes/eventpage/us6000gc3k#pager>

Event ID: us6000gc3k